

Ex post evaluation

Repair and workshop facility, Timor-Leste



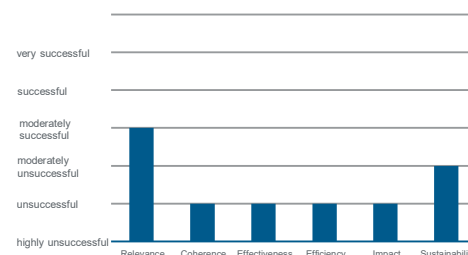
Title	Repair and workshop facility		
Sector and CRS code	21040 Water transport		
Project number	2005 65 085		
Commissioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)		
Recipient/project-executing agency	Timor-Leste, represented by the Ministry of Finance / Ministry of Transportation and Communication		
Project volume/ Financing instrument	EUR 2 million		
Project duration	48 months		
Year of report	2021	Year of random sample	2021

Objectives and project outline

According to the project proposal, the objective at outcome-level was the sustainable operation of a ship repair and workshop facility. As such, the project aimed to promote the maritime sector in Timor-Leste and contribute to secure ferry transport and the maintenance of the ferry service between Dili, Oecussi and Atauro, thereby indirectly contributing to economic growth and better living standards (objective at impact-level).

To achieve this, the intention was to finance basic infrastructure for maintaining ships. This was not built and the project was terminated in 2013.

Overall rating: 5
Unsuccessful



Key findings

The project was terminated because plans by the Timorese government to build a container port and terminal for natural gas liquids meant that the project was classed as unachievable.

Since it was terminated, the project did not exhibit any development effectiveness. The project was therefore rated as unsuccessful.

- The FC project tackled a core economic problem in the country with relevance for development – a lack of options for regular ship docking. The concept and its underlying results chain were generally suitable for helping to resolve the core problem.
- No building work was tendered or contracted up to the point of termination. During the EPE, it was not possible to identify any results from the consulting services provided to that point that could be used later or otherwise.

Due to its termination, the project is evaluated as clearly insufficient with regard to the aspects of coherence, effectiveness, efficiency, impact and sustainability, and thus as a whole.

Conclusions

- When examining developments that are becoming apparent at the time of the appraisal (here: the government's plans at the time to develop Tibar Bay as a commercial port over the medium term), an in-depth review should be carried out as to whether these developments could call the attainability of a planned project completely into question.
- A comparison of alternatives (here: between the repair facility and the procurement of a second ferry) for resolving the core problem is desirable at the time of the project appraisal.

Rating according to DAC criteria

Overall rating: 5

Ratings:

Relevance	3
Coherence	5
Effectiveness	5
Efficiency	5
Impact	5
Sustainability	4

Overall context:

The “Repair and Workshop Facility” project in Timor-Leste appraised in 2008 was terminated in 2013. Since the project was approved in 2005, the underlying conditions to the project’s execution had deteriorated significantly. At the time the project was terminated, plans were in place to build a container port in Tibar Bay and a terminal for liquid goods, which would mean that the site intended for the repair facility would no longer be available.¹ The design of the repair facility and the project design would also have had to be revised completely, likely at a significant extra cost, because the plan at the time of termination was to procure another, larger ferry (thus deviating from the original plans).

Due to uncertainty regarding construction space, design, additional costs and the still unanswered question regarding the operator, the German and Timorese governments agreed during meetings in Dili in March 2013 to stop the project, shorten the financing contract and reprogram the remaining funds (see breakdown of total costs).

Breakdown of total costs

		(Planned)	(Actual)
Investment costs	EUR million	4.00	0.12
Counterpart contribution	EUR million	2.00	0.00
Funding	EUR million	2.00	0.12
of which BMZ budget funds	EUR million	2.00	0.12

Relevance

Both at the time of the project appraisal (PA) in 2008 and in the present day, Timor-Leste – as a small island state with around one million inhabitants – was and still is reliant on efficient and effective sea transport to guarantee supplies to the population and to participate in international trade. Almost all consumer goods, machinery and building materials have to be imported by sea as there is barely any industrial production in the country.

To guarantee the political, social and economic integration of the three parts of Timor-Leste, the country also remains dependent on a reliable and regular ferry link between the three parts of the country; this service links the mainland on the eastern end of the main island of Timor, the enclave of Oecussi located to the west on Indonesian territory, and the island of Atauro located to the north of the main island. While there is a road that runs through Indonesian territory and links the mainland with the enclave of Oecussi, travelling and transporting goods through Indonesian territory still involves high arrival fees, non-tariff

¹ The expansion of the port facilities in Tibar Bay is being implemented as a PPP project with support from IFC and is due to start operations at the end of 2022.

trade restrictions and administrative hurdles for the majority of the population and carriers. Due to poor road links and relatively expensive flights, the ferry service remains the preferred mode of transport, particularly for the poorer population.

Given this state of affairs, German DC has supported Timor-Leste's maritime sector since the early 2000s. FC funds have been used to protect the ferry service between Dili, the enclave of Oecussi and the island of Atauro since March 2003, initially by chartering a ship and since 2007 exclusively using the FC-financed RoRo ferry², the Berlin-Nakroma.

At the time of the PA (2008), the core problem was that the regular docking of ships needed for sustainable operation, maintenance work and repairs on larger ships could not be carried out locally. The core problem persists. Ships still have to be taken to repair facilities abroad. They also have to adhere to international standards during this process. The long trips to Darwin, Australia (400 nautical miles) and Surabaya, Indonesia (850 nautical miles) result in high costs due to the resulting pause in operations in Timor-Leste and the travel costs. Repairs on ships that are no longer seaworthy cannot be carried out, and lead to early breakdowns and correspondingly high costs. Furthermore, there were efforts from the political sphere to become independent from Indonesia in the area of ship repairs.

Logically, the project addressed the construction of a local repair and workshop facility at Tibar Bay for the maintenance of ships up to 50 metres in length; this would have included the entire local fleet of ships and fishing boats at that time. Due to the costs and the possible option to expand the facility for docking longer and heavier supply ships, plans were in place to add a slipway. Furthermore, there were also plans to repair fishing vehicles, construction machinery, diesel generators and other equipment.

This is based on the following results chain: Building and use of a local repair and workshop facility → More cost-effective means for maintaining a secure ferry link between the parts of the country → (Ongoing) trade and movement of goods and access to socio-economic facilities / Contribution to social and economic integration → Improvement to living standards / economic development. Furthermore, the programme proposal (PP) envisaged a contribution to reducing income poverty through the sale of local products on ferry days and through tourism along with the removal of potential conflict through employment options for young people from the greater Dili area. The concept and results chain appear plausible and were suitable for resolving the core problem. However, the maintenance of the ferry services is more the basis for the economic cycle and the protection of living standards, and will not necessarily induce these to improve. At the same time, it is obvious that the maintenance of the ferry links, particularly to Oecussi, is relevant for the poorer population because, without them, goods become more expensive due to the overland transport process (see above). It is difficult to assess the extent to which perceptible contributions would have been generated by direct employment options in the facility or indirectly through the workshop's desired nucleus effect for the manufacturing industries or through the sale of local products and tourism.

The significance of a local repair and workshop facility, particularly for the enclave of Oecussi, was already expressly demonstrated at the time of the PP by the docking of the Berlin-Nakroma: The interruption of ferry services led to the cancellation of school lessons in Oecussi because teachers could no longer leave Dili, workers and employees had to wait for wage payments from Dili, inhabitants in the enclave had no access to specialist healthcare facilities, and the food situation became precarious.

The concept planned to use a concession to run the repair and workshop facility. At the same time, the PP already identified the risk that a concession might not be appealing to qualified international operators due to the difficult underlying conditions³ in Timor-Leste and the financial aspects, while a potential local operator would have required extensive staff support due to a lack of expertise. In the case of a local operator, it also would first have had to build up a reputation before it could receive orders on foreign ships. Indonesian ships would likely have continued to go to Surabaya or other Indonesian repair facilities. In 2007, it had not even been possible to find a private operator for the ferry service concession for the FC-financed Berlin-Nakroma.⁴ As such, the operating concept already involved a great deal of risk even at the

² On Roll-on Roll-off (RoRo) ships, cargo is driven onto the ship.

³ Both then and now, Timor-Leste was ranked bottom of the World Bank's "Doing Business" ranking.

⁴ The port authorities are responsible for operating and docking the Berlin-Nakroma.

time of the PA (2008). From today's perspective, it remains unclear whether there may have been any effective alternatives to the planned operating concession in this generally weak environment.

According to the PP, the location of the workshop facilities belonged to the government and was reserved for the project. It is impossible to determine retrospectively whether it could have been predicted at the time of the PA (2008) that the government's indirect plans to build a commercial port in Tibar Bay would call the feasibility of the repair facility into question. From today's perspective, it may have been more effective in design terms – given the lack of local expertise, institutional capacities, and staff resources – to have procured a second ferry instead of the repair facility; this second ferry could have protected the service if the Berlin-Nakroma was docked or had broken down (see Efficiency).⁵ Regardless of this, it remains understandable (even from today's perspective) that the construction of a repair facility for ships in general (and not just for ferries) was an obvious option for an island state that was located a long way from repair facilities.

At the time of the PA (2008), the advancement of overland transport as a prerequisite for economic growth was a specific goal set out by the government and had been embedded in the national development plan at the time (2002) and in the maritime transport sector investment plan (2005). Corresponding development goals were reflected in the government programme from 2007 to 2012. The project was therefore in line with national objectives. Even now, the Timorese government regards a repair facility as a necessary solution to structural problems.

At the time of the PA (2008), the transport sector was a defined focus area of DC cooperation with Timor-Leste and the aim was to contribute to the improved utilisation of the potential in a market economy approach to the maritime transport sector and to enable the population to actively participate in economic activity. At the time of the ex post evaluation (EPE) in 2021, bilateral cooperation in Timor-Leste is being phased out. As such, no core topics or action fields have been defined according to the BMZ 2030 that would cover the project today.

The project was in line with both Timor-Leste's objectives and with the goals of German DC and could have contributed to their target achievement.

Based on the operating concept, which was already identified as risky during the PA and would have been significant to the project's impact and sustainability, the relevance is regarded as satisfactory.

Relevance rating: 3

Coherence

German DC's involvement in "promoting the maritime sector", particularly in relation to the aforementioned FC-financed ferry Berlin-Nakroma, was due to be complemented by the project and was expected to secure its sustainability. The project and German TC were closely linked to one another. The TC involvement promoted the expansion of capacity and the advancement of the ministry (MTC) responsible for the port authorities APORTIL.

At the time of the PA (2008), areas of cooperation in the maritime sector were coordinated between international donors, such as the USA, Japan, Australia, New Zealand and the ILO. The US coastguard advised Timor-Leste on port security; Japan supported repairs to the port facilities in Dili and later also in the enclave of Oecussi; Australia and New Zealand planned to cooperate with the Timorese customs authorities; and the ILO provided training material for port worker training courses.

The project's concept as described above complemented the activities of German DC and other donors in principle, and it would have supported partner efforts and made use of existing systems. However, no complementary effects could be tapped into due to the project's termination. Coherence is therefore rated inadequate.

Coherence rating: 5

⁵ A project to procure a second ferry (the Berlin-Ramelau) is currently underway. This is due to be handed over in 2021.

Effectiveness

The project objective was to ensure the sustainable operation of a ship repair and workshop facility, which was expected to form a nucleus for the manufacturing industries. The goal was to contribute to the sustainability of the current cooperative programme “promoting the maritime sector” by reducing the maintenance costs (shorter downtimes, no travel costs) for the financed Berlin-Nakroma ferry. The logframe also named the regular ferry service between Dili, Oecussi and Atauro as a goal at outcome level.

The target achievement at outcome level was due to be measured using the following indicators:

Indicator	Status PA / Target value PA	Status EPE
Use of the repair facility (Number of ship classifications* / repairs per year, 3 years after commissioning; repairs of other machines / equipment)	0 / 6	0
Compliance with relevant safety and environmental standards (IMO standards, 3 years after commissioning)	- / Yes	0

* Technical examination to evaluate the structural condition and suitability for transport

An adjustment of the target formulation at outcome level would have been advisable if the project had continued. The term “sustainable operation” implies use of the facility, including income, which was reflected accordingly in the PP by the indicator “use of the repair facility”. To capture the use and direct impact in line with the PP’s logframe, the following formulation might have been appropriate: “More regular and more secure ferry service between Dili, Oecussi and Atauro through the construction and use of the repair facility.”

The indicators were appropriate for the subject matter. In view of the proposed adjusted target formulation, an indicator to capture regular ferry operation would have been desirable.

Due to the termination of the project, the objectives at outcome level could not be achieved. The effectiveness is therefore clearly inadequate.

Effectiveness rating: 5

Efficiency

An implementation period of roughly 35 months was calculated for the entire implementation process from the project proposal up to the final inspection. The time from the PP to the shortening of the financing agreement due to the project’s termination ultimately amounted to 48 months.

The PP did not contain any information about the specific costs and their appropriateness (production efficiency).

The picture is mixed when it comes to allocation efficiency: In the microeconomic assessment, the PP assumed that the low local demand for ship repairs meant it would only be possible to achieve long-term coverage of operating costs with low profits. A critical view is taken on this with regard to sustainability (see Sustainability). In terms of macroeconomic aspects, the PP argued that a local repair facility would simplify access to repairs and that regular inspections and preventive maintenance would not be put off due to difficult-to-predict repair costs and long downtimes. Consequently, a local repair facility would extend the useful life of ferries and other Timorese ships.

Even though the arguments regarding the repair facility in the PP referred to a reduction in maintenance costs due to shorter downtimes, lower costs for replacement ships, no travel costs and lower labour costs, it would have been interesting from the current perspective – given the risky operating concept (see Relevance) – to have studied in the PA how the repair facility compared to the procurement of a second ship, including docking/travel and repair costs abroad. The PP and subsequent reports repeatedly address the poor local capacities. It remains uncertain whether it would have been possible to establish the weak

executing agency as a supervisory body of the operator or to find and set up a local concession holder who would have been able to perform high-quality repairs efficiently and up to international standards, meaning that docking abroad would no longer have been necessary.

Since the project did not deliver any results that would be useful elsewhere or at a later date, the efficiency is rated as clearly inadequate.

Efficiency rating: 5

Impact

According to the PP, the project aimed to promote the development of the maritime sector in Timor-Leste, particularly the maintenance of the ferry links between Dili, Oecussi and Atauro, and, as a result, indirectly contribute to economic growth and an improvement of living standards. As a secondary objective, it aimed to contribute to the reduction of potential conflict by creating additional training roles and jobs in the manufacturing industries in the Dili region.

The target achievement at impact level was due to be measured using the following indicators:

Indicator	Status PA / Target value PA	EPE
Passengers on the Berlin-Nakroma (per month, one-way trip, both routes cumulated, 1/3 women)	2,300 (n.a.) / 2,300 (n.a.)	-
Employees in the repair facility (number 3 years after commissioning, 1/5 women)	0 (0) / 15 (3)	-

The creation of a sustainably run repair facility and the complementary involvement of TC and other donors (see Coherence) would have contributed to the goal of developing the maritime sector and maintaining ferry services; these activities also had the potential to bring about value creation and employment in the country and contribute to better living standards. However, these indirect effects are also heavily influenced by other variables. The impacts of the maintained ferry services would rather have been seen as fundamental requirements and safeguards for the economic cycle, integration and living standards.

The repair facility could have made an important contribution to sea transport infrastructure that was effective and efficient over the long term. In the context of Timor-Leste, this is an important element for the development and also stabilisation (promotion of peace / nation building) of the young island state, which has been shaped by unrest. By helping to connect remote parts of the country, it could have promote to achieve the desired social and economic integration.

The “passengers on the Berlin-Nakroma” indicator aimed to record the improved access to markets, healthcare and educational facilities through the maintenance of ferry services. While the level of ambition for the target is understandable from today’s perspective in view of the protection of ferry services, it would not be ambitious enough for the intended improvements. Furthermore, without any specific measures for women, it would have been difficult to ascribe the defined percentage of women as an impact of the project.

For capturing the protection of ferry services, other indicators may have been more appropriate, such as the number and regularity of ferry crossings, ferry deployment time over the course of one year or down-times. However, the contribution to the indirect outcomes of economic growth and improved living standards as intended in the results chain is not captured by the “passengers on the Berlin-Nakroma” indicator, as the purpose of travel is not recorded. The indirect effects could have been estimated, for example, by recording the change in household income, goods turnover/capacity of cargo, supply of essential goods, or visits to specialist healthcare facilities on the mainland.

The results chain in the PP also envisaged positive effects on the reduction of income poverty resulting from the sale of local products on ferry days and tourism. No indicators were defined for this. This gives rise to the general question on significance with regard to perceptible contributions (see Relevance).

While the “employees in the repair facility” indicator is generally suited to recording the direct employment opportunities, the level of ambition suggests that the impacts would have been minor with regard to the intended secondary goal of reducing conflict through employment. The same applies to the resulting impacts on reducing income poverty. Employment effects could have been captured further, for example, by recording the settlement of manufacturing industries. This could potentially have incorporated the indirect employment impacts from the workshop facility’s nucleus effect.

Due to the termination of the project, the objectives at impact level could not be achieved. The effectiveness is therefore clearly inadequate.

Impact rating: 5

Sustainability

The operation of the repair facility was essential for the sustainability of the project and its intended outcomes. Even at the time of the PP, the operating concept was risky (see Relevance).

German DC was involved in the maritime sector up to the time of the ex post evaluation. While both the PP and final review found the port authorities to exhibit institutional and personnel weaknesses and have little expertise, the 2021 report reveals that it seems to have improved in both of these aspects. However, it remains uncertain as to whether the port authorities could have been successfully established as a supervisory body for the operator. Equally, it is unclear whether an experienced international operator would have run the facility or whether a local operator would have had to be established. As before, the underlying legal and regulatory conditions for the private sector remain poor. However, the performance of the port authorities and operator would have been key factors for sustainability.

In terms of sustainability, a critical stance is taken of the fact that, according to the microeconomic perspective in the PP, the low local demand for ship repairs would have meant that only long-term coverage of the operating costs with low profits would have been possible, and more extensive maintenance work and replacement investments for the repair facility from the Timorese budget would have had to be financed to avoid high and alarming exit costs for the operator.

For more extensive maintenance work and replacement investments in the repair facility, funds could have been provided from the oil fund for maintenance work and replacement investments. However, the final inspection (2013) found that the young country is confronted with the limited capacities of its authorities when using these funds. Up to the time of the ex post evaluation, it had repeatedly been observed that budget funds for maintaining the Berlin-Nakroma had repeatedly not been made available on time. This had led to delays in the ferry’s regular docking and had an adverse effect on its sustainability. This could also have applied to the repair facility.

Due to the termination of the project, the repair facility was not built, nor were any other outcomes achieved. Consequently no impacts were identified and the sustainability is unsatisfactory.

Sustainability rating: 4

Notes on the methods used to evaluate project success (project rating)

Projects (and programmes) are evaluated on a six-point scale, the criteria being **relevance, effectiveness, efficiency** and **overarching developmental impact**. The ratings are also used to arrive at a **final assessment** of a project's overall developmental efficacy. The scale is as follows:

Level 1	Very good result that clearly exceeds expectations
Level 2	Good result, fully in line with expectations and without any significant shortcomings
Level 3	Satisfactory result – project falls short of expectations but the positive results dominate
Level 4	Unsatisfactory result – significantly below expectations, with negative results dominating despite discernible positive results
Level 5	Clearly inadequate result – despite some positive partial results, the negative results clearly dominate
Level 6	The project has no impact or the situation has actually deteriorated

Rating levels 1-3 denote a positive assessment or successful project while rating levels 4-6 denote a negative assessment.

Sustainability is evaluated according to the following four-point scale:

Sustainability level 1 (very good sustainability): The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability): The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected).

Sustainability level 3 (satisfactory sustainability): The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability): The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and is very unlikely to improve. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The **overall rating** on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. Rating levels 1-3 of the overall rating denote a "successful" project while rating levels 4-6 denote an "unsuccessful" project. It should be noted that a project can generally be considered developmentally "successful" only if the achievement of the project objective ("effectiveness"), the impact on the overall objective ("overarching developmental impact") and the sustainability are rated at least "satisfactory" (level 3).